MATRIX FOR THE
8-HOUR STRUCTURAL III EXAMINATION

SEISMIC ISSUES

- FORCE DISTRIBUTION
  - Irregularities
  - Deformation Compatibilities
  - Basic Dynamics

- SITE EFFECTS
  - Soil Structure Interaction
  - Foundation Design

- STRUCTURAL COMPONENT DESIGN
  - Primary LFRS Members
  - Diaphragms, Chords and Collectors

- DETAILING AND DUCTILITY
  - Members
  - Connections

- NON-STRUCTURAL COMPONENTS
  - Forces on Elements
  - Anchorage

OTHER ISSUES (Loads, Design, Detailing)

- Snow Drifting
- Load Combinations
- Verify Computer Output

Structural Design Standards

Structures:

- **IBC, International Building Code, 2006 Edition with appropriate National standards for various materials, i.e. AISC, 13th edition or ACI 318, 2005 Edition.**

With each edition of the IBC, there are a series of standards that follow that edition and the candidate must stay within that series of standards. The appropriate standards for an edition of the code is shown in Chapter 35 of the code. For example, the 2003 IBC references portions of ASCE 7-02, while the 2006 IBC references portions of ASCE 7-05. Using ASCE 7-02 with the 2006 IBC would be inappropriate and could result in not receiving points on a problem.

Bridges:

- **Standard Specifications for Highway Bridges, Seventeenth Edition, 2002, American Association of State Highway and Transportation Officials, Washington, D.C.**

- **AASHTO LRFD Bridge Design Specifications, Customary U.S. Units, 4th Edition, 2007, American Association of State Highway and Transportation Officials, Washington, D.C.**

- **WSDOT Bridge Design Manual (latest version), Washington Department of Transportation, Olympia, WA.**